SERVICE MANUAL

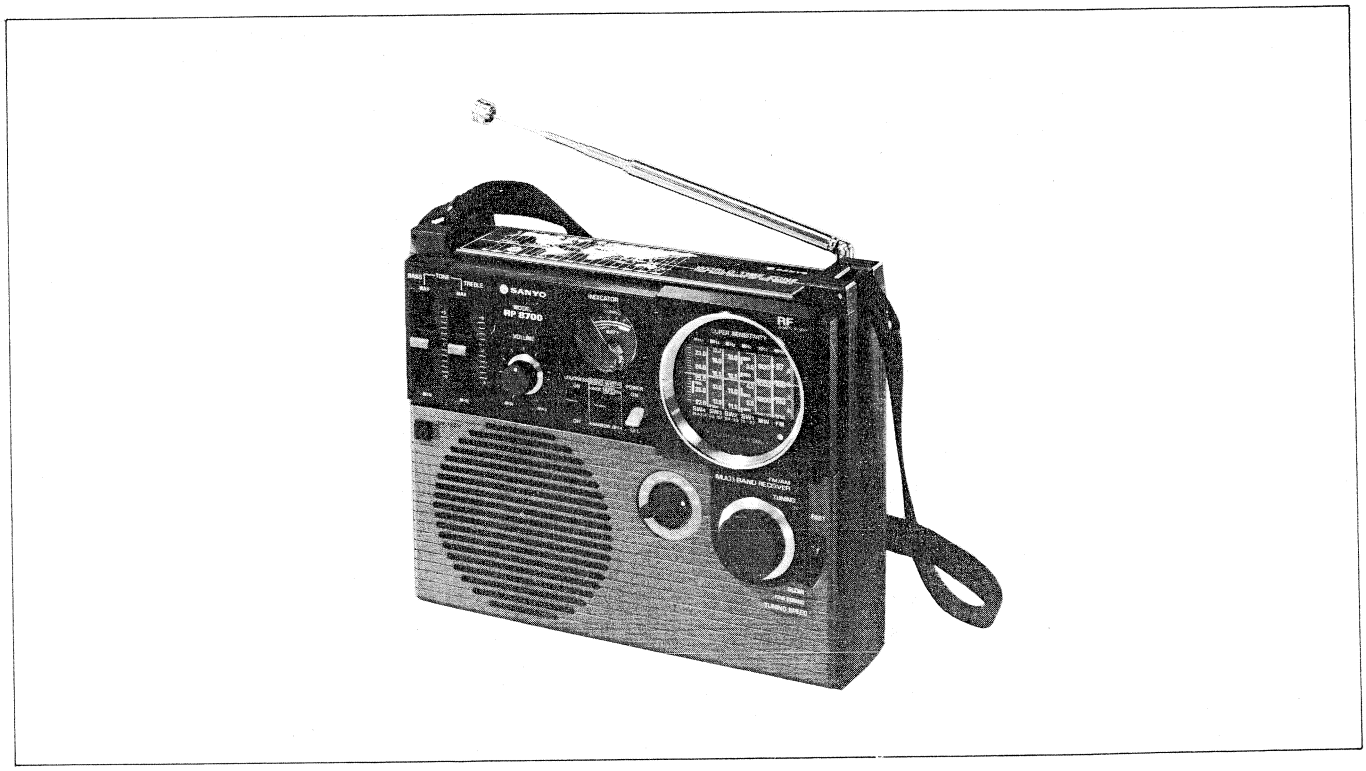
SANYO

PORTABLE RADIO

RP8700 SS/AS
(REVISED)

MARKET IDENTIFICATION BY MODEL NUMBER SUFFIX

RP8700SS: Model for general market
RP8700AS: Model for Australian market



SPECIFICATIONS

Frequency Ranges:	MW	510 – 1605 kHz (505 – 1650 kHz)	
	SW1	2.3 – 7.3 MHz (2.2 – 7.6 MHz)	
	SW2	9.5 – 12.0 MHz (9.4 – 12.2 MHz)	
	SW3	15.1 – 17.9 MHz (15.0 – 18.2 MHz)	
	SW4	21.4 – 28.0 MHz (21.2 – 28.5 MHz)	
	FM	87.5 – 108 MHz (87.0 – 109.0 MHz)	
Intermediate Frequency:	AM	455 kHz	
	FM	10.7 MHz	
ICs:	IC701	LA4100K	Power Amp.
	IC702	LA4100K	Power Amp.
Transistors:	Q101	2SC930E	FM RF Amp.
	Q102	2SC930D	FM Converter
	Q103	2SC929D	AM Mixer
	Q301	2SC930E	FM IF Amp.
	Q302	2SC930E	FM/AM IF Amp.
	Q303	2SC930E	FM/AM IF Amp.
	Q304	2SC930D	FM/AM IF Amp.
	Q305	2SC930D	FM IF Amp.
	Q306	2SC536G	Meter
	Q701	2SC536G	AF Amp.
	Q104	2SC929D	AM Oscillator
Diodes:	D101	DS442	FM Limitter
	D102	1S553	FM AFC
	D105	1S188AM	SW1 Limiter
	D104	DS442	
	D301	MV11T	Stabilizer
	D302	DS442	Meter
	D304	1S188AM	AM Detector
	D305	MA26W	Stabilizer
	D306	1S188FM	FM Discriminator
	D307	1S188FM	FM Discriminator
	D308	YZ047	Regulator
	D701	DS132	Rectifier
	D702	DS131	Rectifier

Sensitivity (for 50mW output):	MW	33μV/m
	SW1	10μV
	SW2	4μV
	SW3	4μV
	FM	4μV
	SW4	4μV
Power Output:	Maximum	2000mW
	Undistorted	1600mW
Power Source:	DC:	6.0V for 1.5V "D" Size x 4
	AS:	AC; 240V 50Hz 5W
	SS:	120/200/240V 50/60Hz 5W
Speaker:	12cm Permanent Dynamic Speaker 8 ohm	
Dimensions:	259(W) x 212(H) x 89(D)mm	
Weight (without batteries):	2 Kg (Approx.)	

ALIGNMENT PROCEDURES

GENERAL ALIGNMENT CONDITIONS

1. The position of volume control is at maximum position.
2. Signal input must be kept as low as possible to avoid overload.
3. Use an output meter of the highest possible sensitivity.
4. Standard modulation is 400 Hz at 30% amplitude (for AM) and 22.5 kHz deviation (for FM).

MW BAND – Band selector switch in MW position

Step	Connection of Signal Gen.	Input Signal Frequency	Dial Setting of Radio	Connection of Output Meter	Adjust	Remarks
1	Loop Antenna	455 kHz	Lowest End	Across Speaker	IFT T304, 305	Adjust for Maximum
2	Same	505 kHz	Lowest End	Same	Osc. Coil L115	Same
3	Same	1650 kHz	Highest End	Same	Osc. Trim. CT-3	Same
4	Same	600 kHz	600 kHz	Same	Ant. Coil L110-1	Same
5	Same	1400 kHz	1400 kHz	Same	Ant. Trim. CT-4	Same

Repeat steps 1 thru 5 to obtain maximum sensitivity.

FM BAND – Band selector switch in FM position

Step	Connection of Signal Gen.	Input Signal Frequency	Dial Setting of Radio	Connection of Meter or Oscilloscope	Adjust	Remarks
1	Connect Sweep Marker Generator to VC ANT., Earth	10.7 MHz	Lowest End	Connect scope input cable thru network to TP4, Earth	IFT, T301, 302	Adjust for Maximum sensitivity with symmetrical curve
2	Same	10.7 MHz	Lowest End	Connect scope input cable thru network to R338, Earth	IFT T303	Adjust for symmetrical "S" curve
3	Connect Signal Generator to TP2, 3	87.0 MHz	Lowest End	Connect V.T.V.M. across speaker	Osc. Coil L104	Adjust for Maximum
4	Same	109.0 MHz	Highest End	Same	Osc. Trim. CT-2	Same
5	Same	90 MHz	90 MHz	Same	RF Coil L101, 102	Same
6	Same	108 MHz	108 MHz	Same	RF Trim. CT-1	Same

Repeat steps 1 thru 6 to obtain maximum sensitivity.

SW1 BAND – Band selector switch in SW1 position

Step	Connection of Signal Gen.	Input Signal Frequency	Dial Setting of Radio	Connection of Output Meter	Adjust	Remarks
1	Dummy Antenna	2.2 MHz	Lowest End	Across Speaker	Osc. Coil L116	Adjust for Maximum
2	Same	7.6 MHz	Highest End	Same	Osc. Trim. CT-9	Same
3	Same	2.5 MHz	2.5 MHz	Same	Ant. Coil L110-2	Same
4	Same	6.8 MHz	6.8 MHz	Same	Ant. Trim. CT-5	Same

Repeat steps 1 thru 4 to obtain maximum sensitivity.

SW2 BAND – Band selector switch in SW2 position

Step	Connection of Signal Gen.	Input Signal Frequency	Dial Setting of Radio	Connection of Output Meter	Adjust	Remarks
5	Dummy Antenna	9.4 MHz	Lowest End	Same	Osc. Coil L117	Adjust for Maximum
6	Same	12.2 MHz	Highest End	Same	Osc. Trim. CT-10	Same
7	Same	9.6 MHz	9.6 MHz	Same	Ant. Coi. L112	Same
8	Same	11.8 MHz	11.8 MHz	Same	Ant. Trim. CT-6	Same

Repeat steps 5 thru 8 to obtain maximum sensitivity.

SW3 BAND – Band selector switch in SW3 position

Step	Connection of Signal Gen.	Input Signal Frequency	Dial Setting of Radio	Connection of Output Meter	Adjust	Remarks
1	Dummy Antenna	15.0 MHz	Lowest End	Across Speaker	Osc. Coil L119	Adjust for Maximum
2	Same	18.2 MHz	Highest End	Same	Osc. Trim. CT-11	Same
3	Same	15.3 MHz	15.3 MHz	Same	Ant. Coil L113	Same
4	Same	17.8 MHz	17.8 MHz	Same	Ant. Trim. CT-7	Same

Repeat steps 1 thru 5 to obtain maximum sensitivity.

SW4 BAND – Band selector switch in SW4 position

Step	Connection of Signal Gen.	Input Signal Frequency	Dial Setting of Radio	Connection of Output Meter	Adjust	Remarks
5	Dummy Antenna	21.2 MHz	Lowest End	Same	Osc. Coil L122	Adjust for Maximum
6	Same	28.5 MHz	Highest End	Same	Osc. Trim. CT-12	Same
7	Same	21.6 MHz	21.6 MHz	Same	Ant. Coil L114	Same
8	Same	26.8 MHz	26.8 MHz	Same	Ant. Trim. CT-8	Same

Repeat steps 5 thru 8 to obtain maximum sensitivity.

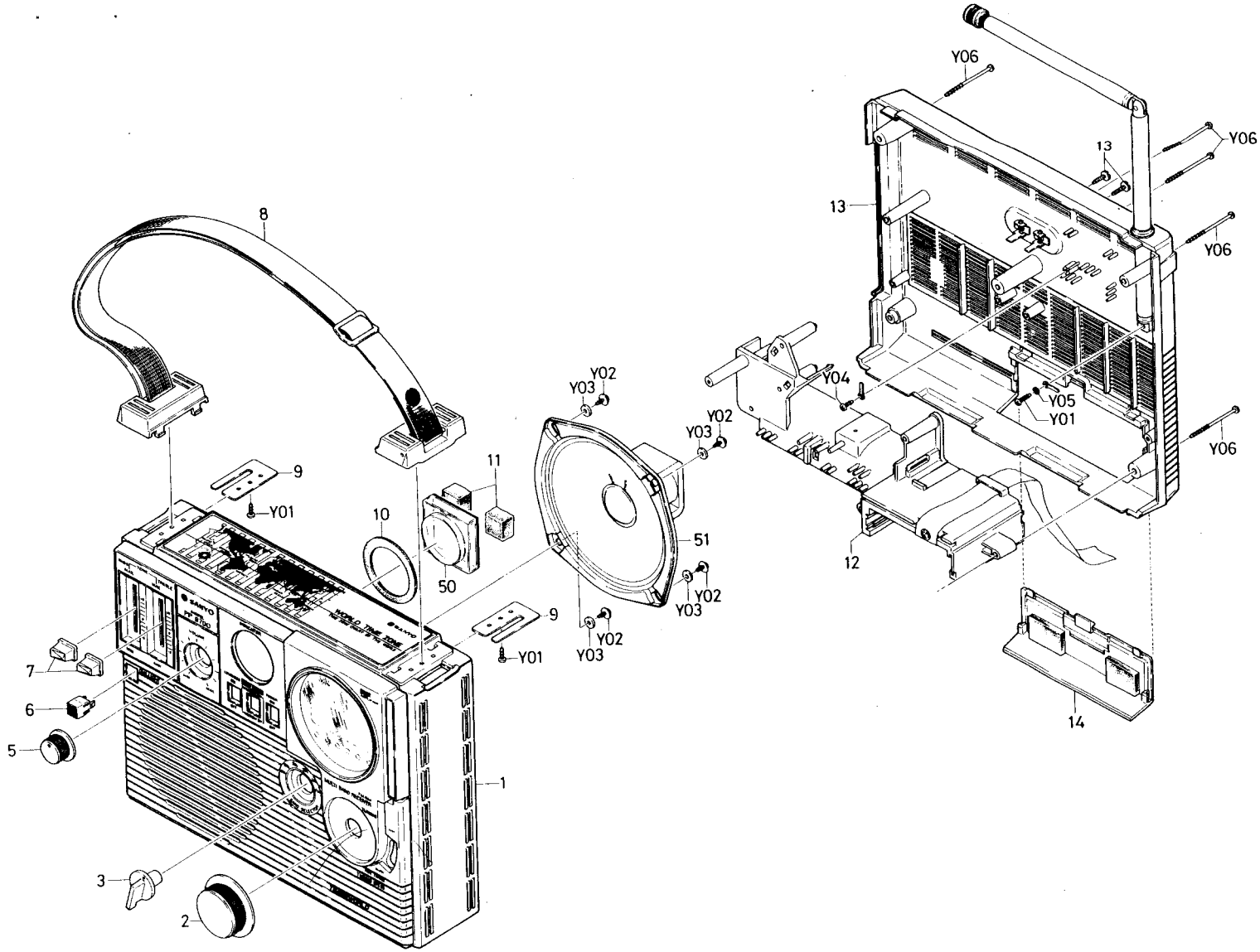
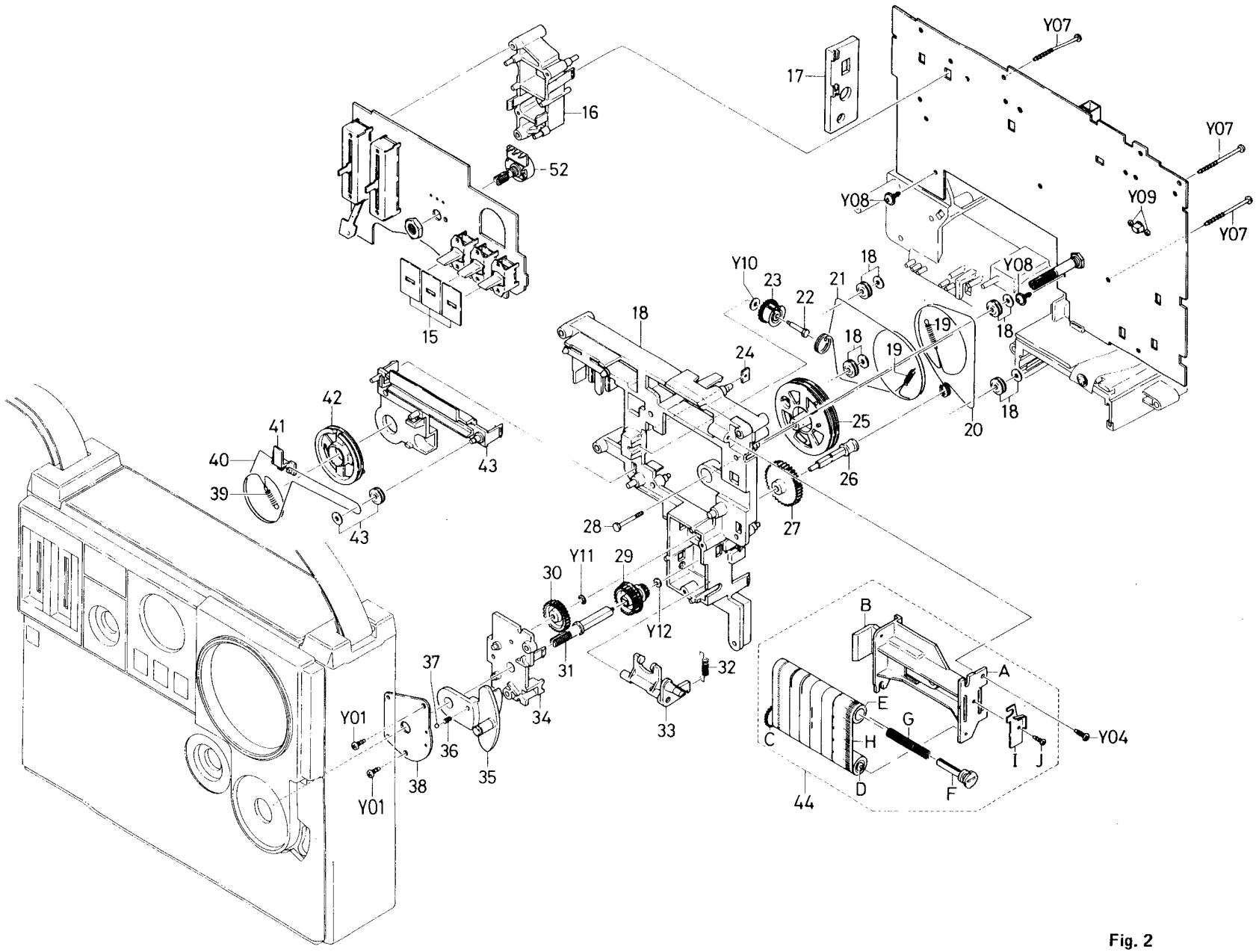


Fig. 1

CABINET DISASSEMBLY

1. Remove 5 screws (#Y06) fastening the cabinet back (#13) to the cabinet front (#1).
2. Pull the cabinet back open and disconnect a pair of antenna jumper leads from the circuit board.
3. Pull off 5 knobs (#2, #3, #5 and #7) found on the cabinet front.
4. Remove 3 red marked screws (#Y07) fixing the circuit board.
5. Disconnect a pair of speaker jumper leads from the circuit board.
6. Take out the circuit board.


Y07
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Y07
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Y08
Y09
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Y10
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Y08
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Y11
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Y12
31
32
37
Y01
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J
Y04
44

Fig. 2

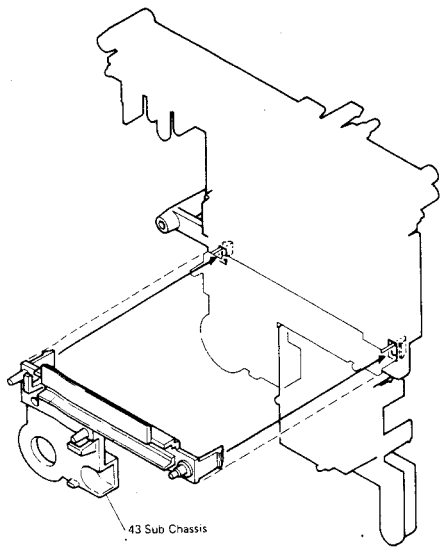


Fig. 3

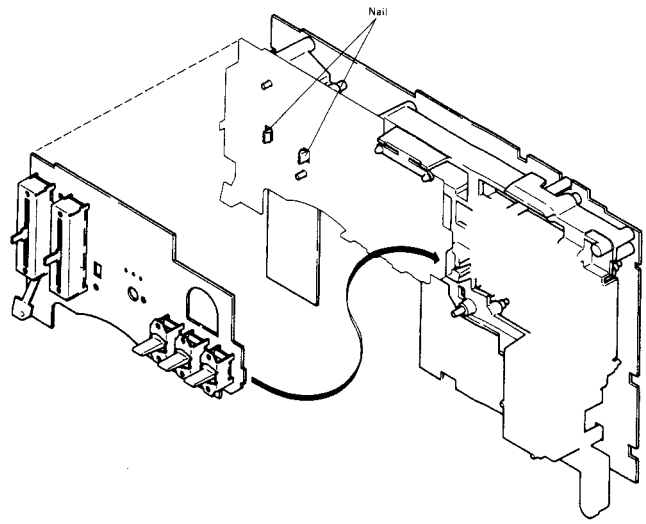


Fig. 4

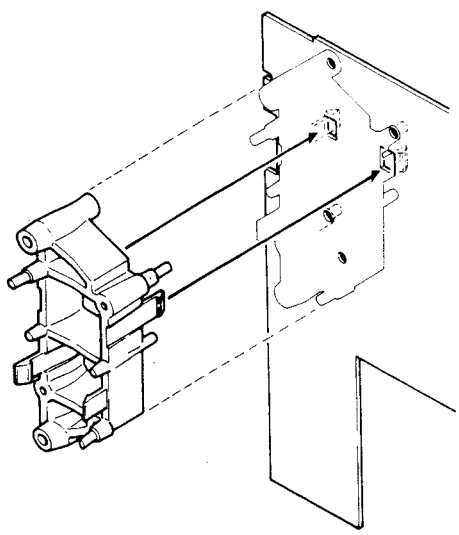


Fig. 5

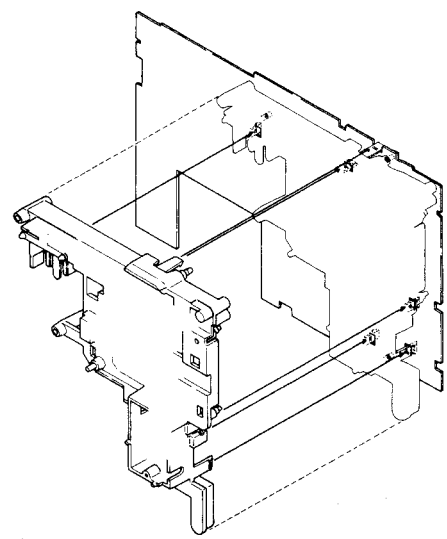


Fig. 6

1. Disengage a righthand catch
   Disassemble the subchassis (#43) with its righthand catch disengaged from the chassis assembly (#18). (Refer to Fig. 3).
2. Disassemble the subchassis (#16)
   Disassemble the small circuit board by disengaging two plastic catches of the subchassis (#16) from it. (Refer to Fig. 4).
3. Disassemble the dial mechanism (#44) with a screw (#Y04) removed from its section A.
4. Disassemble the chassis (#18) with its six catches disengaged from the circuit board, after removing a hex. head screw (#28). (Refer to Fig. 6)

PARTS LIST

Ref. No.	Part No.	Description	Q'ty
PACKING MATERIAL			
	141-6-141T-08301	Individual Carton (RP8700SS)	1
	141-6-141T-08302	Individual Carton (RP8700AS)	1
	141-6-144T-26000	Pad, Left Side	1
	141-6-144T-28400	Pad, Right Side	1
	141-6-411T-73100	Instruction Book (RP8700SS)	1
	141-6-411T-73200	Instruction Book (RP8700AS)	1
	141-6-472T-05603	Caution Label (RP8700SS)	1
		Polyethylene Bag, 350 x 450mm, Set	1
		Polyethylene Bag, 100 x 200mm, Cord	1
		Sheet, 100 x 150mm	1
CABINET PARTS			
1	141-0-111T-255912	Cabinet Assembly	1
2	141-0-163T-09400	Rotary Knob Assembly, TUNING	1
3	141-2-163T-28200	Rotary Knob, BAND SELECTOR	1
5	141-0-163T-10100	Rotary Knob Assembly, VOLUME	1
6	141-2-161T-25600	Push Button, DIAL LIGHT	1
7	141-0-164T-03000	Slide Knob Assembly, TREBLE/ BASS	2
8	141-0-176T-06091	Shoulder Band Assembly	1
9	141-2-178T-03600	Bracket Band, Holder	2
10		Cushion, 36ϕ x 46ϕ x 1.5mm, Meter	1
11		Cushion, 10 x 15 x 10mm, Meter	2
12	141-0-331T-02891	Holder Battery Assembly	1
13	141-0-126T-160912	Back Lid Assembly (RP8700SS)	1
13	141-0-126T-160913	Back Lid Assembly (RP8700AS)	1
14	141-0-128T-03100	Battery Lid Assembly	1
CHASSIS PARTS			
15	141-2-241T-15100	Veil, Snap Switch	3
16	141-2-312T-13400	Sub Chassis	1
17	141-2-143T-66600	Marking Plate, PHONO/RADIO, EARPHONE, HEAD PHONES	1
18	141-0-311T-19991	Chassis Assembly	1
19	123-2-481R-11800	Spring Coil, Dial Rope	2
20		Dial Rope, 0.3ϕ x 450mm	1
21		Dial Rope, 0.3ϕ x 650mm	1
22	141-2-567T-01500	Pulley Shaft, Drum mtg.	1
23	141-2-538T-02700	Drum	1
24	141-2-411T-06300	Plate Nut	1
25	141-2-538T-04000	Drum, Tuning Capacitor	1
26	141-2-566T-03300	Tuning Shaft	1
27	141-2-581T-03200	Gear, 27ϕ	1
28	141-2-425T-00300	Hexagon Screw, 2.6 x 20mm	1
29	141-2-581T-03300	Gear, 20ϕ	1
30	141-2-581T-03100	Gear, 18ϕ	1
31	141-2-566T-03400	Tuning Shaft	1
32	141-2-851T-89000	Spring Coil	1
33	141-2-741T-80500	Lever	1
34	141-2-210T-00700	Bracket	1
35	141-0-162T-02700	Lever Knob Assembly, Tuning Speed	1
36	123-2-481R-13800	Spring Coil	1
37		Steel Ball, 1/8 inch dia.	1
38	141-2-747T-11400	Bracket, Lever	1
39	123-2-481R-10600	Spring Coil, Band Selector	1
40		Dial Rope, 0.3ϕ x 500mm	1
41	141-0-511T-06291	Pointer Assembly	1
42	141-2-538T-04100	Drum, Band Selector	1
43	141-0-312T-13591	Sub Chassis, Band Selector	1
44	141-0-210T-006912	Bracket Assembly, Dial Mechanism	1
A	141-2-210T-00600	Bracket	(1)
B	141-2-329T-03600	Refractor	(1)
C	141-2-581T-02900	Gear	(1)
D	123-2-210R-20100	Bracket	(1)
E	141-2-538T-03300	Drum	(1)
F	141-2-581T-02300	Gear	(1)
G	141-2-851T-86700	Spring Coil	(1)
H	141-2-146T-06102	Dial Scale	(1)
I	141-2-853T-37100	Spring Plate	(1)
J		Tapping Screw, Pan Hd., 2.3 x 4mm	(1)
		Rubber Cushion, 3.5ϕ x 6ϕ x 3.5mm, Dial Light	1

Ref. No.	Part No.	Description	Q'ty
CHASSIS PARTS			
	141-6-479T-11800	Label, Fuse, 1.25AT, P.C.B. mtg.	1
		Rubber Cushion, 6 x 6 x 9mm, Holder Battery mtg.	1
		Rubber Cushion, 7 x 7 x 1mm, P.C.B. mtg.	1
MOUNTING			
Y01		Tapping Screw, Pan Hd., 3 x 12mm	5
Y02		Tapping Screw, Pan Hd. with Washer, 3 x 8mm	4
Y03		Washer, 3 x 8 x 1mm	4
Y04		Tapping Screw, Pan Hd., 3 x 8mm	4
Y05		Spring Washer, 3mm	1
Y06		Tapping Screw, Pan Hd., 3 x 40mm	5
Y07		Tapping Screw, Pan Hd., 3 x 35mm	3
Y08		Tapping Screw, Pan Hd., 3 x 10mm	2
Y09		Screw, Pan Hd., 2.6 x 4mm	2
Y10		Washer 2.1 x 9 x 0.5mm	1
Y11		"E" ring, 3mm	1
Y12		Graphite Nylon Washer, 2.1 x 6 x 0.5mm	1
Y13		Screw, Pan Hd., with Washer, 3.x 8mm	1
Y14		Nut, 3mm	1
Y15		Washer, 3 x 8 x 0.5mm	1
Y16		External Tooth Lock Washer, 3mm	1
Y17		Tapping Screw, Pan Hd., 3 x 20mm	1

Schematic Location	Part No.	Description	Q'ty
SEMICONDUCTORS			
Q101,301, 302,303		Transistor, 2SC930E	4
Q102,304, 305		Transistor, 2SC930D	3
Q103,104		Transistor, 2SC929D	2
Q306,701		Transistor, 2SC536G	2
IC701,701		Integrated Circuit, LA4100K	2
D101,104, 302,		Diode, DS442	3
D102		Diode, 1S553	1
D105,304		Diode, 1S188AM	2
D301		Diode, MV-11T	1
D305	4-205R-10100	Diode MA26W	1
D306,307		Diode, 1S188FM	2
D308		Diode, YZ-047	1
D701		Diode, DS132	1
D702		Diode, DS131	1
COILS & TRANSFORMERS			
L101	4-265R-12800	VHF Coil, 3-1/2	1
L103	4-265R-05000	VHF Coil, 6-1/2	1
L121	4-265R-00400	VHF Coil, 4-1/2	1
L104	4-265R-10500	VHF Coil, 4-1/2	1
L118,120	4-265R-01300	VHF Coil, 3-1/2	2
L105,106	4-252T-05000 4-253R-11100	or Choke Coil, 1μH, SW2, SW3	2
L107	4-252T-05700 4-252T-04800	or Choke Coil, 3.9μH, SW4	1
L108	4-253R-10700 4-252T-05100	or Choke Coil, 39μH, SW	1
L109	4-252T-06200	Choke Coil, 100μH, SW1	1
L110	4-257T-16301	Antenna Coil Assembly, MW/SW1	1
L112	4-257T-14300	Antenna Coil, SW2	1
L113	4-257T-14400	Antenna Coil, SW3	1
L114	4-257T-14500	Antenna Coil, SW4	1
L115	4-258T-08900	Oscillator Coil, MW	1
L116	4-258R-25000	Oscillator Coil, SW1	1
L117	4-258T-12400	Oscillator Coil, SW2	1
L119	4-258T-12500	Oscillator Coil, SW3	1
L122	4-258T-12600	Oscillator Coil, SW4	1
L123	4-252T-06500	Choke Coil, 10μH, SW3	1
L124,125	4-253R-11100	Choke Coil, 1μH, SW4	2
T301	4-256R-20830	IF Transformer, FM	1
T302	4-256R-15130	IF Transformer, FM	1
T303	4-256R-02330	IF Transformer, FM	1
T304	4-256T-06000	IF Transformer, AM	1

PARTS LIST

Schematic Location	Part No.	Description	Q'ty
COILS & TRANSFORMERS			
T305	4-256T-00230	IF Transformer, AM	1
T701	4-251T-47500	Power Trans. 120/200/240V (RP8700SS)	1
T701	4-251T-47600	Power Trans. 240V (RP8700AS)	1
MISCELLANEOUS			
CF301,302	4-256T-80400 4-256T-80471 4-256T-80472 4-256T-80473 4-256T-80474	or IF Filter	2
	4-151T-19700	Speaker, 12 cm, 8 ohm	1
	4-612R-12475	Lamp	1
	4-511T-06800	Indicator, Meter	1
	123-2-471R-10400	Bead Core	2
	4-244T-01200	Telescopid Rod Antenna	1
	4-235T-26800	Socket, Power	1
	141-2-135T-32200	Back Cover, Power Socket	1
	141-2-381T-01800	Bracket, Fuse Holder	2
	4-234T-03100	Fuse, 1.25A	1
	4-235T-31971	Socket, Head Phone	1
	4-235T-23100	Socket, DIN	1
	4-235R-14000	Socket, Earphone	1
	141-2-322T-18900	Shield Plate, Parts Side	1
	141-2-322T-18100	Shield Plate Pattern Side	1
	141-2-853T-40700	Spring Plate, Dial Light Switch	1
	141-2-336T-04600	Terminal, Dial Light Switch	1
TP1,2,3, 5,6	123-2-474R-00200	Tip Plug	5
TP4	4-237T-00100	Terminal	1
	123-2-472R-00400	Lug, Power Transformer mtg.	1
	141-2-464T-08700	Fixer, Lead mtg.	2
	141-2-336T-06800	Terminal Battery,(−), Spring Coil	1
	141-2-336T-04904	Terminal Battery, (+)	2
	141-2-336T-09400	Terminal Battery,(−), Spring Plate	1
	141-2-322T-29400	Shield Plate, T305	1
	141-2-322T-29300	Shield Plate, IC	1
	4-243T-12600	Lead, P.C.B. (Main - Sub)	1
	141-2-382T-03071	Terminal, Pilot Lamp Lead	3
	141-2-322T-20900	Shield Plate, T303	1
	4-243T-76401	Power Cord Assembly (RP8700SS)	1
	4-243T-12301	Power Cord Assembly (RP8700AS)	1
	4-253T-09200	IF Filter, FM Antenna	1
	4-226T-828911	P.C.B. Assembly, Main	1
	4-226T-829911	P.C.B. Assembly, Sub	1
CONTROLS			
VC1-4 CT1-4	4-224R-08400	Tuning Capacitor	1
CT5,9	4-224R-01400	Trimmer, 8pF	2
CT6,12	4-224R-01600	Trimmer, 16pF	2
CT7,8, 10,11	4-224R-11800	Trimmer, 16pF x 2	4
R326	4-222T-03100	Semi-fixed Resistor, 2K ohm, Meter Zero Point Adjust	1
R701	4-222T-47900	Variable Resistor, 100K B, VOLUME	1
R708,710	4-222T-47700	Variable Resistor, TREBLE/BASS	2
S1	4-231T-52600	Slide Switch, Band Select	1
S2,3	4-231T-52471	Slide Switch, AFC/LOUDNESS	2
S4	4-231T-42100	Slide Switch, RADIO/PHONO	1
S5	4-231T-52400	Slide Switch, POWER	1
S6	4-231T-37600	Switch, 120/200/240V Voltage Selector	1

Schematic Location	Part No.	Description	Q'ty
RESISTORS			
All Resistors are Carbon type, ±10% and 1/4W unless otherwise specified.			
R122,723		10 ohm	2
R115,309		15 ohm	2
R120,131		33 ohm	2
R110		39 ohm	1
R121,715, 717		47 ohm	3
R106		56 ohm	1
R727		68 ohm	1
R109,123, 304,726		100 ohm	4
R331		150 ohm	1
R308,721, 103		220 ohm	3
R301,306		220 ohm	2
R332		270 ohm	1
R126,307, 310		330 ohm	3
R315,322, 330		390 ohm	3
R101,118, 711,303, 305		470 ohm	5
R339,716		560 ohm	2
R104		820 ohm	1
R114,311, 313,328, 724,725, 704,816, 333,334		1K ohm	10
R314		1.8K ohm	1
R112,335, 712,702, 703,324		2.2K ohm	6
R705,707		4.7K ohm	2
R302,336, 337,323		5.6K ohm	4
R317,338, 329		6.8K ohm	3
R327		8.2K ohm	1
R130,325, 709		10K ohm	3
R321		12K ohm	1
R102,105, 111,113 312		15K ohm	5
R706		22K ohm	1
R722,714, 340		33K ohm	3
R320		47K ohm	1
R108,107, 319		100K ohm	3
R718,719		220K ohm	2
R720		390K ohm	1
R713		1.5M ohm	1
CAPACITORS (CERAMIC & MYLAR)			
All Capacitors are Ceramic type, 50V unless otherwise specified.			
C335		1pF, ±0.25pF	1
C111,119, 315		3pF, ±0.25pF	3
C106		3pF, ±0.25pF	1
C130		4pF, ±0.25pF	1
C151		6pF, ±0.5pF	1
C316		7pF, ±0.5pF	1
C116		10pF, ±5%	1
C112,121, 123		12pF, ±5%	3
C115,117, 118		15pF, ±10%	3
C101,134, 142		20pF, ±10%	3
C104,140		22pF, ±5%	2
C109		25pF, ±10%	1
C329		30pF, ±10%	1
C137		35pF, ±5%	1
C120,122, 133,136		40pF, ±5%	4

PARTS LIST

Schematic Location	Part No.	Description	Q'ty
CAPACITORS (CERAMIC & MYLAR)			
C124,139		56pF, ±5%	2
C149,725, 143		100pF, ±10%	3
C343		100pF, ±10%	1
C338		220pF, ±20%	1
C110		470pF, ±20%	1
C107,108, 301,307, 319,334		0.01μF, +80 −20%	6
C126,304, 312,317, 337,340		0.022μF, +80 −20%	6
C102,103, 105,306, 313,320, 336,731, 732,733, 734		0.04μF, +80 −20%	11
C327,709		0.1μF, ±20%, 12V	2
C113		6pF, ±0.5pF	1
C117		8pF, ±0.5pF	1
All Capacitors are Mylar type, 50V unless otherwise specified.			
C138,720		470pF, ±20%	2
C135,309, 144,726, 725,330, 331,719, 720		0.001μF, ±20%	9
C328,710		0.0022μF, ±20%	2
C125,132, 310		0.0047μF, ±20%	3
C305		0.0056μF, ±20%	1
C703		0.0068μF, ±20%	1
C127,321, 322,706		0.01μF, ±20%	4
C131,325, 326,308, 314,323, 704		0.022μF, ±20%	7
C341,708, 701,705, 707,351		0.039μF, ±20%	6
C721,727		0.1μF, ±20%	2
CAPACITORS (ELECTROLYTIC & STYROL)			
C333		Electrolytic, 0.1μF, 10V	1
C702		Electrolytic, 0.22μF, 10V	1
C114,318, 714,723		Electrolytic, 1μF, 10V	4
C332,730		Electrolytic, 4.7μF, 25V	2
C311		Electrolytic, 10μF, 16V	1
C717,724		Electrolytic, 22μF, 10V	2
C722,728		Electrolytic, 47μF, 10V	2
C324		Electrolytic, 220μF, 6.3V	1
C711,715		Electrolytic, 240V, 10V	2
C712		Electrolytic, 470μF, 10V	1
C713		Electrolytic, 1000μF, 6.3V	1
C729		Electrolytic, 2200μF, 10V	1
C716		Electrolytic, 100μF, 10V	1
C128		Styrol, 270pF, ±5%, 50V	1
C129		Styrol, 1100pF, ±5%, 50V	1
C740,741		Electrolytic 2.2μF	1

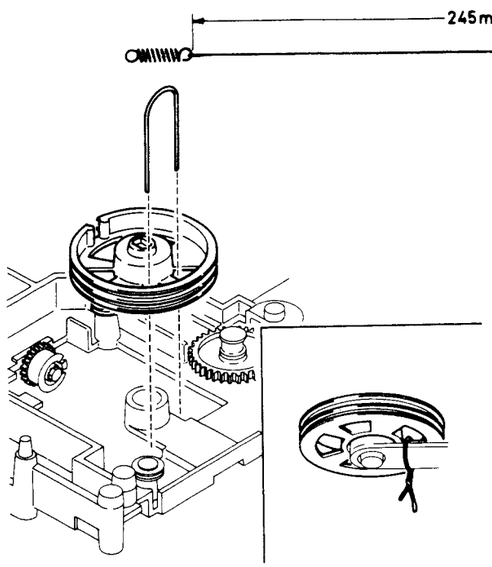


Fig. 7

Tie the drum to the chassis with a rope.

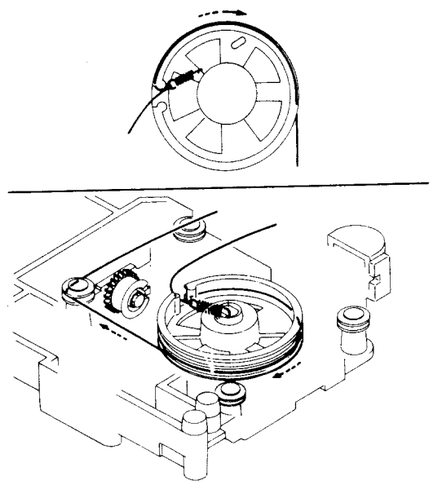


Fig. 8

Hook the free end of a tension spring to the drum at its center and place the dial cord along a lower groove of the drum around the drum along its lower groove as shown.

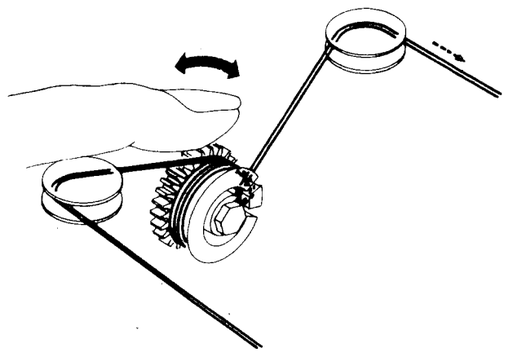


Fig. 9

Wind the cord around the geared drum 3 turns, then loop it through cut openings on the drum a turn, as shown.

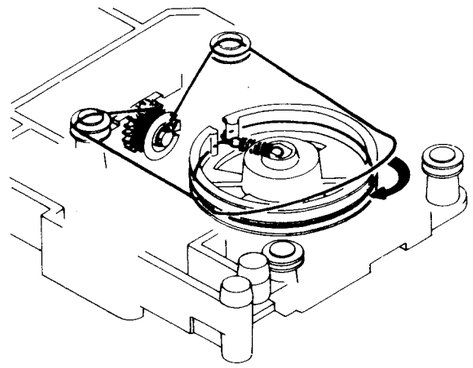


Fig. 10

Wind the cord around the drum as shown.

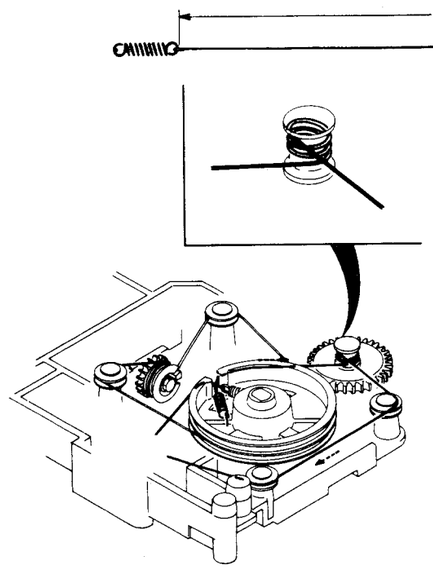


Fig. 11

Hook, the free end of another tension spring to the drum and place the dial cord around the drum along its upper groove. Then turn it around the gear by 3 turns.

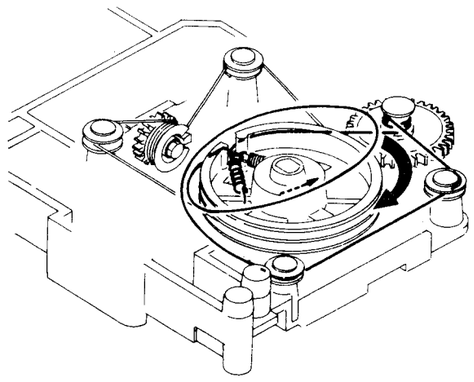


Fig. 12

Pass it through 2 pulleies and turn it around the drum by 1 turn as shown. Then reform the dial cord stringing neatly.

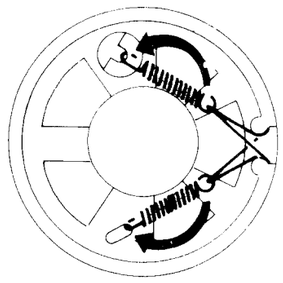


Fig. 13

Shift the hooking point of each tension spring at the respectively specified point as shown.

DRUM MOUNTING ON THE TUNING CAPACITOR SHAFT

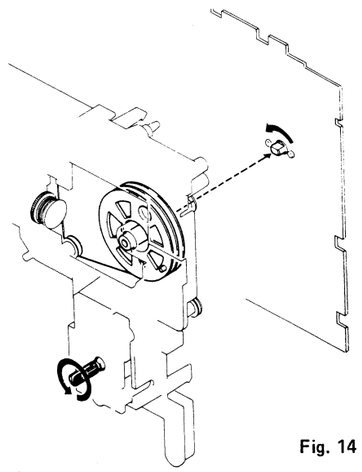


Fig. 14

Mount the drum on the tuning capacitor shaft with its shaft rotated fully counterclockwise when the tuning control shaft is placed at a fully counterclockwise position to provide a lowest frequency indication on dial scale.

HOW TO STRING DIAL CORD FOR WAVE BAND INDICATION

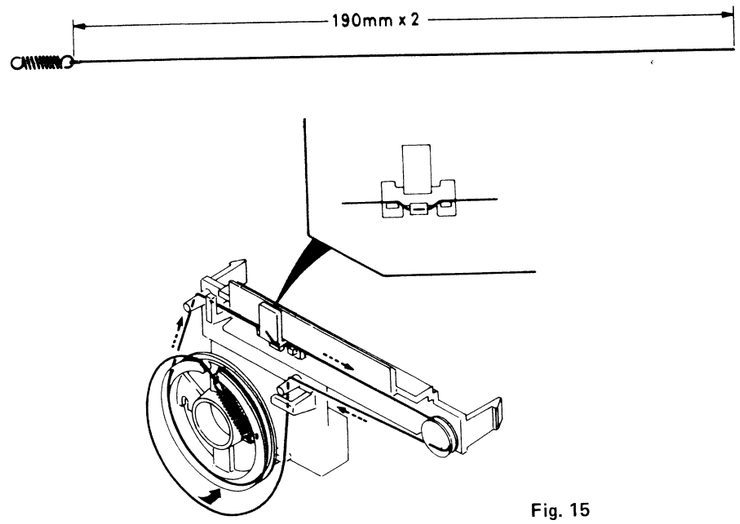


Fig. 15

DIAL SCALE CALIBRATION

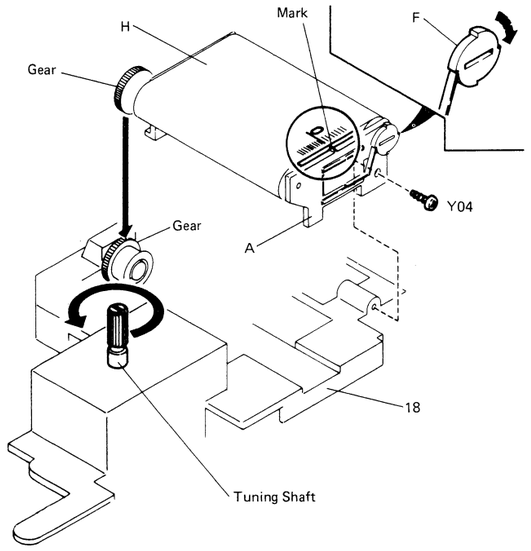


Fig. 16

Turn the tuning shaft fully counter-clockwise and adjust the zero point (on the dial scale) at the projected mark (on the bracket (A)) by rolling the dial scale. Then, mount the dial scale and the bracket on the chassis (18) with a screw (Y04) after engaging the gears of both the dial scale and the chassis with each other. Eliminate a slack in the dial scale by turning the gear (F) clockwise by 10 turns.

ZERO ADJUSTMENT ON INDICATOR

Set the band selector switch at MW. Apply a 6V DC source voltage to the unit and adjust the mini-pot (R326) to make Pointer point the letter "1" on the scale. (a center of bold yellow line.)

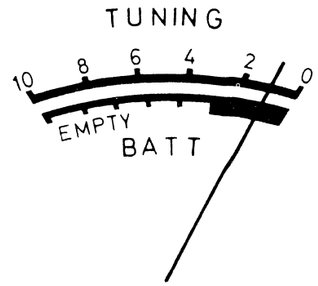
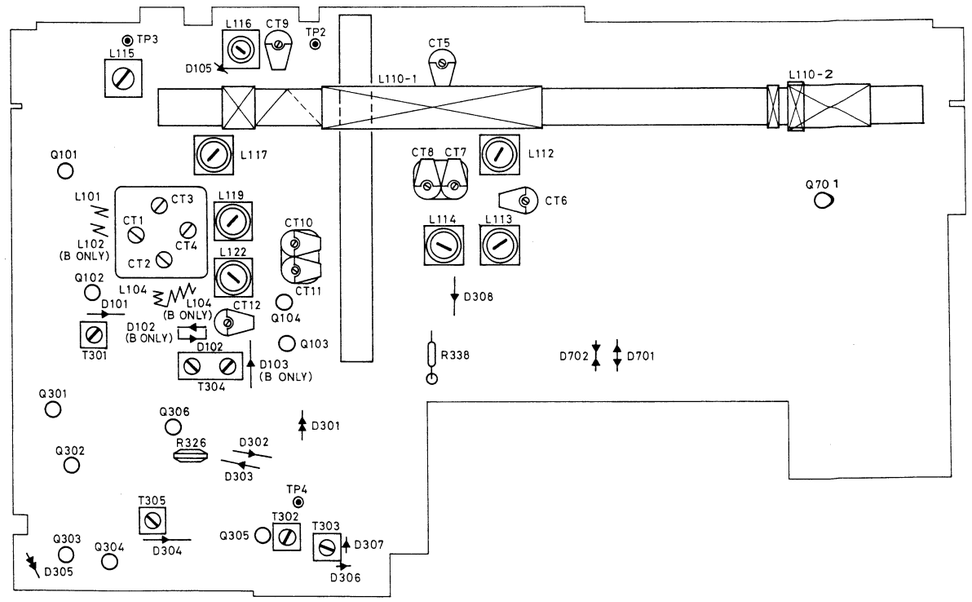
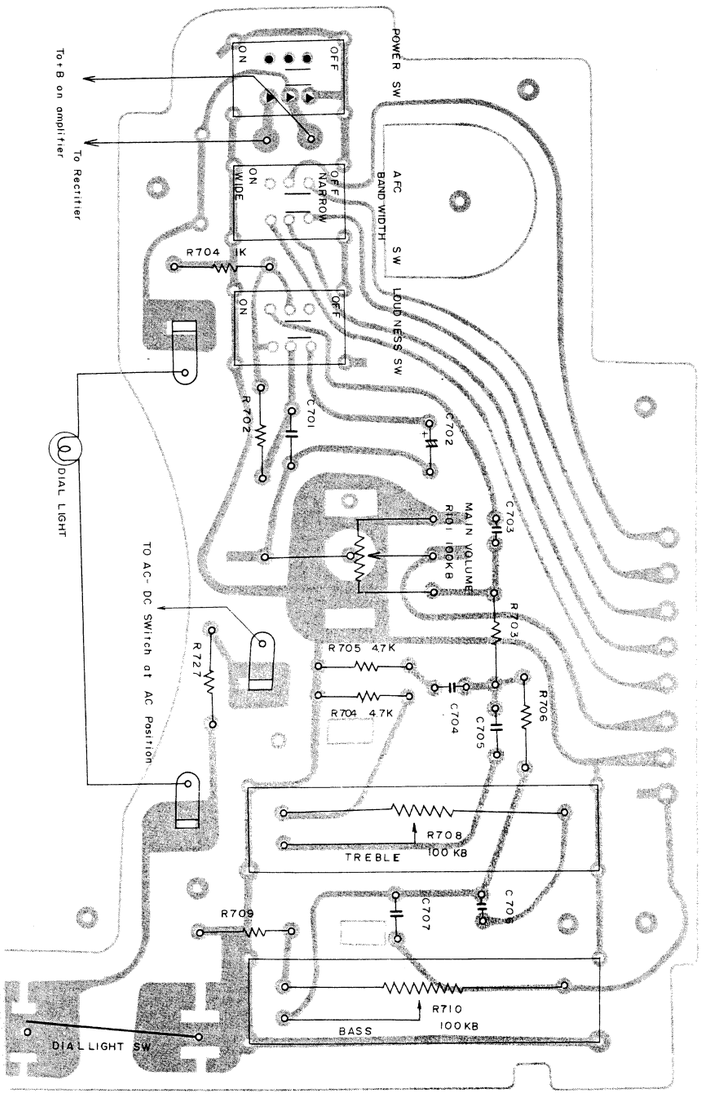
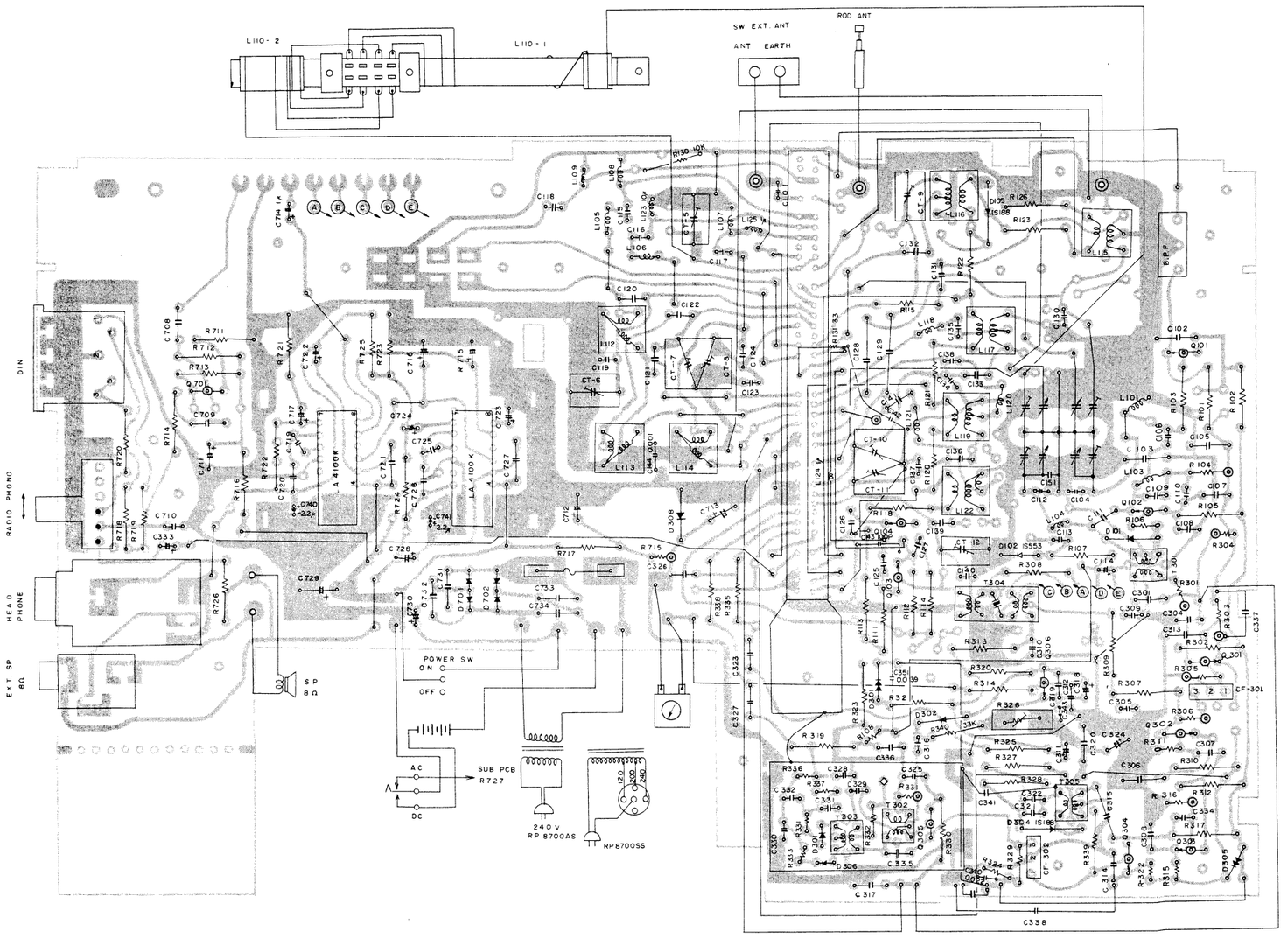


Fig. 17

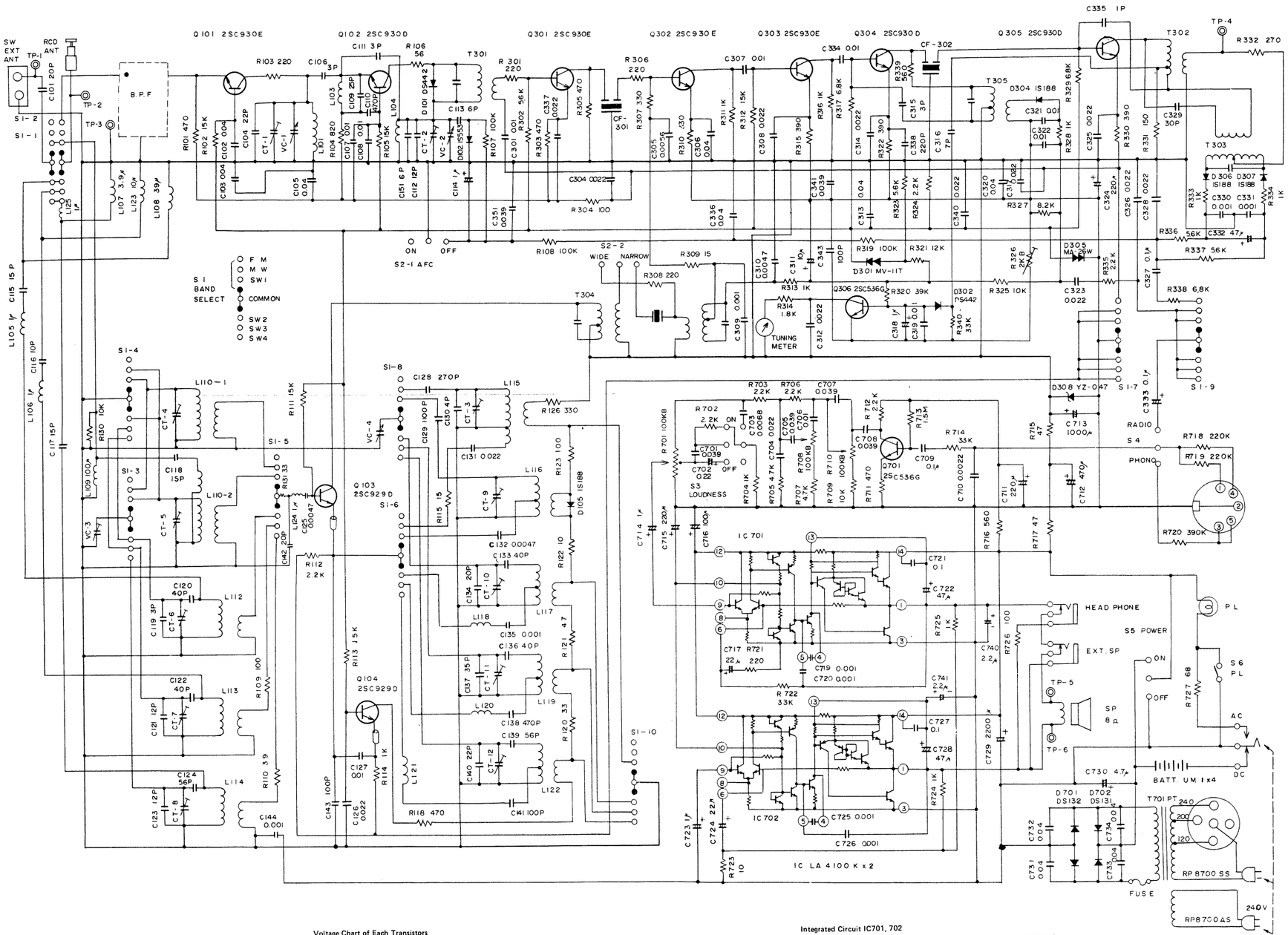
PARTS LOCATION




To B on amplifier
To Rectifier
POWER SW
ON
OFF
AFC BAND WIDTH SW
WIDE
NARROW
LOUDNESS SW
R704 1K
R702
C701
C702
C703
MAIN VOLUME
R101 100KB
R703
R705 4.7K
R704 4.7K
C704
C705
R706
R727
TO AC-DC Switch at AC Position
R708
TREBLE
100 KB
C707
C708
R709
R710
BASS
100KB
DIAL LIGHT
DIAL LIGHT SW


L110-2
L110-1
SW EXT. ANT
ANT EARTH
ROD ANT
DIN
RADIO PHONO
HEAD PHONE
EXT SP 8Ω
SP 8Ω
POWER SW
ON
OFF
AC
DC
SUB PCB R727
240V RP8700AS
RP8700SS
LA 4100K
B.P.F
CF-301
CF-302

SCHEMATIC DIAGRAM



Voltage Chart of Each Transistors

Item \ Transistor No.	Band	Q101	Q102	Q103	Q104	Q301	Q302	Q303	Q304	Q305	Q306	Q701
Collector Voltage (V)	MW	4.7	4.7	4.7	4.25	4.7	3.7	3.7	4.1	4.7	4.2	3.1
	FM	4.55	4.65	4.6	4.6	4.35	3.65	3.6	3.85	4.4	4.2	3.1
Base Voltage (V)	MW	0.65	0.65	1.2	1.15	0.65	10.0	1.1	1.15	0.7	0.7	0.65
	FM	1.15	1.2	1.9	1.9	1.25	1.05	1.10	1.2	1.2	0.7	0.65
Emitter Voltage (V)	MW	0.65	0.65	0.55	0.5	0.65	0.35	0.45	0.45	0.7	0.35	0.5
	FM	0.5	0.55	1.9	1.9	0.55	0.35	0.45	0.45	0.5	0.35	0.5

NOTES: 1. All voltage are measured from common negative (−) ground.
2. Volume control is at the minimum position.

Integrated Circuit IC701, 702

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
MW/FM	3.1	0	0	4.2	0.75	2.9	0

	No. 8	No. 9	No. 10	No. 11	No. 12	No. 13	No. 14
MW/FM	2.4	2.5	3.0	0	5.8	6.0	6.0

NOTES: 1. All voltage are measured from common negative (−) ground.
2. Volume control is at the minimum position.

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Osaka-fu, 570 Japan

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